

## WEST Search History





DATE: Wednesday, May 16, 2007

<b>Hide?</b>	<b>Set Name</b>	<b>Query</b>	<b>Hit Count</b>
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<input type="checkbox"/>	L37	l36 and dishwasher	6
<input type="checkbox"/>	L36	bates.in.	3998
<input type="checkbox"/>	L35	bates.inv.	3998
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	<i>DB=EPAB; PLUR=YES; OP=ADJ</i>		
<input type="checkbox"/>	L32	CA-2024544-A.did.	0
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<input type="checkbox"/>	L31	L28 and leak	2
<input type="checkbox"/>	L30	L28 and slant\$	0
<input type="checkbox"/>	L29	L28 with slant\$	0
<input type="checkbox"/>	L28	L26 with diverting	34
<input type="checkbox"/>	L27	L26 with diverting with leak	0
<input type="checkbox"/>	L26	(applianc\$ or (home applianc\$) or refreg\$ or washer or dishwasher)	210513
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<input type="checkbox"/>	L24	L22 and (leak diversion)	1
<input type="checkbox"/>	L23	L22 and diversion	1
<input type="checkbox"/>	L22	l1 and (slanted surface)	535
<input type="checkbox"/>	L21	l1 and l4	1
<input type="checkbox"/>	L20	l9 and diversion	0
<input type="checkbox"/>	L19	l9 and 134/\$.ccls.	2
<input type="checkbox"/>	L18	l1 and l4	1
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<input type="checkbox"/>	L15	L9 and l4	0
<input type="checkbox"/>	L14	L9 and l8	19

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<input type="checkbox"/>	L7	(slanted surface)	6271
<input type="checkbox"/>	L6	(slanted surface) or (sloped surface)	16668
<input type="checkbox"/>	L5	leak divers\$	9
<input type="checkbox"/>	L4	leak diversion	6
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<input type="checkbox"/>	L2	leak detector	2869
<input type="checkbox"/>	L1	(applianc\$ or (home applianc\$) or refreg\$ or washer or dishwasher)	301174

END OF SEARCH HISTORY

## Hit List

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Search Results - Record(s) 1 through 10 of 19 returned.

☐ 1. Document ID: US 20070066736 A1

L14: Entry 1 of 19

File: PGPB

Mar 22, 2007

PGPUB-DOCUMENT-NUMBER: 20070066736

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20070066736 A1

TITLE: Resin composition for reflecting plates

PUBLICATION-DATE: March 22, 2007

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Tsutsumi; Hideyuki	Tokushima		JP
Tabuchi; Akira	Tokushima		JP
Yagi; Toshiaki	Tokushima		JP

US-CL-CURRENT: 524/413

## ABSTRACT:

The present invention relates to a resin composition for reflector plates containing 30 to 95% by weight of a semi-aromatic polyamide having the ratio of aromatic monomers to all the monomer components being 20% by mole or more, and 5 to 70% by weight of potassium titanate fiber and/or wollastonite. Additionally, the present invention relates to a resin composition for reflector plates used for an ultraviolet-ray generating source, comprising a thermoplastic resin and at least one inorganic compound selected from the group consisting of fibrous and flaky inorganic compounds capable of reflecting ultraviolet rays as well as visible light.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw De
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☐ 2. Document ID: US 20070039345 A1

L14: Entry 2 of 19

File: PGPB

Feb 22, 2007

PGPUB-DOCUMENT-NUMBER: 20070039345

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20070039345 A1

TITLE: PORTABLE, POTABLE WATER RECOVERY AND DISPENSING APPARATUS

PUBLICATION-DATE: February 22, 2007

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Forsberg; Francis C.	San Antonio	TX	US
Colbert; Clayton	Los Angeles	CA	US

US-CL-CURRENT: 62/285; 62/317

## ABSTRACT:

A portable, potable-water generator for producing high-purity liquid water by condensation of water vapor from ambient air. The generator employs an air filter to remove particulates and aerosols from the incoming air. An enclosed heat absorber cools the filtered air to its dew point and collects droplets of condensate into a condensate collector. Before discharge, the collected dew is treated in a bacteriostat loop to destroy adventitious living organisms and to filter out undesirable and dangerous contaminants. A recirculation loop provides the ability to recirculate stored condensate, including during periods of inactivity. Further, quick disconnect fittings and variable length flexible tubing allows use of the invention to serve remote dispensers and/or appliances and allow use of municipal water treated through the apparatus in low condensate situations.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMOC	Draw De
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☐ 3. Document ID: US 20050224118 A1

L14: Entry 3 of 19

File: PGPB

Oct 13, 2005

PGPUB-DOCUMENT-NUMBER: 20050224118

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050224118 A1

TITLE: Water leak detection and prevention systems and methods

PUBLICATION-DATE: October 13, 2005

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Tornay, Paul G.	Bend	OR	US

US-CL-CURRENT: 137/624.11

## ABSTRACT:

Water leak detection and prevention systems and methods in which water is only delivered to the water pipes in the building when a faucet or appliance demands water and water is delivered through a normally closed shut off water valve. During the period that the main water is shut off, the water pressure in the water pipes is continuously monitored to detect a water leak in the building. Detection of a leak causes an alarm to be sounded and a continued closure of the shut off valve.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 4. Document ID: US 20050126264 A1

L14: Entry 4 of 19

File: PGPB

Jun 16, 2005

PGPUB-DOCUMENT-NUMBER: 20050126264  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20050126264 A1

TITLE: MULTI-FUNCTIONAL LEAK DETECTION INSTRUMENT ALONG WITH SENSOR MOUNTING  
ASSEMBLY AND METHODOLOGY UTILIZING THE SAME

PUBLICATION-DATE: June 16, 2005

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Komninos, Nikolaos I.	Littleton	CO	US

US-CL-CURRENT: 73/40.5A

## ABSTRACT:

A leak detection instrument may comprise a housing, a gas sensor supported relative to the housing, an AE sensor for generating a sound detection input signal upon exposure to gas leakage, processing circuitry for producing output signals, and an output device. The AE sensor may include an elongated mounting member, an AE sensor housing supported by the mounting member, and an AE sensor disposed therein. Improvements to leak detection instruments, an AE sensor mounting assembly and a method of monitoring a device to ascertain leakage of a target gas therefrom are also provided.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 5. Document ID: US 20030011482 A1

L14: Entry 5 of 19

File: PGPB

Jan 16, 2003

PGPUB-DOCUMENT-NUMBER: 20030011482  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030011482 A1

TITLE: Moisture monitoring system

PUBLICATION-DATE: January 16, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Harms, Frederick H.	Overland Park	KS	US
McKenzie, Charles C.	Johannesburg		ZA

US-CL-CURRENT: 340/605; 340/618, 340/620

## ABSTRACT:

A leakage response system for an appliance includes a leakage sensor which is operative to change an electrical parameter upon contact by a conductive liquid, a controller circuit electrically coupled with the strip for generating an activation signal in response to contact of the strip by a conductive liquid and a response device coupled with the controller circuit and activated by the signal. The sensor includes a mat which is constructed of top and bottom outer layers of electrically conductive fabric separated by a central nonconductive fabric layer; and a pair of fusing layers fusing the top and bottom layers to the central nonconductive layer. The sensor may also include a pair of conductive pins for installation into a surface for detecting moisture hidden within the surface. The response device may include an audible alarm and/or a valve for shutting off the water flow in the appliance water supply line. The response device may also include a radio link for activating a remote alarm and shut off valve. An alternate sensor mat includes a pair of apertured foil conductive layers separated by a nonconductive layer, and a pair of fusing layers fusing the foil conductive layers to top and bottom nonconductive absorbent layers.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KINC	Draw De
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☐ 6. Document ID: US 20020096213 A1

L14: Entry 6 of 19

File: PGPB

Jul 25, 2002

PGPUB-DOCUMENT-NUMBER: 20020096213

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020096213 A1

TITLE: System and method for closing an existing valve in response to a detected leak

PUBLICATION-DATE: July 25, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Jacobsen, Ron	Hobe Sound	FL	US
Craig, Jack	Boca Raton	FL	US
Lumsden, John	Boca Raton	FL	US

US-CL-CURRENT: 137/312

## ABSTRACT:

The invention is system and method for detecting a leak and operating an existing valve in response to the detected leak. In this regard, a receiving unit may be installed on an existing shutoff valve. The valve may control the flow of a fluid into a site. A transmitting unit may be installed in the vicinity of an appliance receiving the fluid. The transmitting unit may include a detector capable of detecting the fluid. In response to the detector detecting the fluid, the transmitting unit may transmit a signal including a unique 32 bit code. A receiver

within the receiving unit may be capable of receiving the signal. Additionally, a PIC microprocessor within the receiving unit may be configured to receive the signal from the receiver and determine if the signal contains the code. In response to determining the signal contains the code, the PIC may control a motor to operate (e.g., turn off) the valve. The motor may be configured for attachment to the valve via a coupler.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw De
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☐ 7. Document ID: US 7089763 B2

L14: Entry 7 of 19

File: USPT

Aug 15, 2006

US-PAT-NO: 7089763

DOCUMENT-IDENTIFIER: US 7089763 B2

TITLE: Portable, potable water recovery and dispensing apparatus

DATE-ISSUED: August 15, 2006

PRIOR-PUBLICATION:

DOC-ID

DATE

US 20050139552 A1

June 30, 2005

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Forsberg; Francis C.

Boerne

TX

US

Colbert; Clayton

Los Angeles

CA

US

US-CL-CURRENT: 62/635; 62/285

ABSTRACT:

A portable, potable-water generator for producing high-purity liquid water by condensation of water vapor from ambient air. The generator (125) employs an air filter (119) to remove particulates and aerosols from the incoming air. An enclosed heat absorber cools the filtered air to its dew point and collects droplets of condensate into a condensate collector (5). Before discharge, the collected dew is treated in a bacteriostat loop to destroy adventitious living organisms and to filter out undesirable and dangerous contaminants. A recirculation loop provides the ability to recirculate stored condensate, including during periods of inactivity. Further, quick disconnect fittings (55b) and variable length flexible tubing allows use of the invention to serve remote dispensers and/or appliances and allow use of municipal water treated through the apparatus in low condensate situations.

41 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw De
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☐ 8. Document ID: US 7051577 B2

L14: Entry 8 of 19

File: USPT

May 30, 2006

US-PAT-NO: 7051577

DOCUMENT-IDENTIFIER: US 7051577 B2

TITLE: Multi-functional leak detection instrument along with sensor mounting assembly and methodology utilizing the same

DATE-ISSUED: May 30, 2006

## PRIOR-PUBLICATION:

DOC-ID

DATE

US 20050126264 A1

June 16, 2005

## INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Komninos; Nikolaos I.

Littleton

CO

US

US-CL-CURRENT: 73/40.5A; 73/40.7

## ABSTRACT:

A leak detection instrument may comprise a housing, a gas sensor supported relative to the housing, an AE sensor for generating a sound detection input signal upon exposure to gas leakage, processing circuitry for producing output signals, and an output device. The AE sensor may include an elongated mounting member, an AE sensor housing supported by the mounting member, and an AE sensor disposed therein. Improvements to leak detection instruments, an AE sensor mounting assembly and a method of monitoring a device to ascertain leakage of a target gas therefrom are also provided.

37 Claims, 39 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Keywords	Drawings
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☐ 9. Document ID: US 6731215 B2

L14: Entry 9 of 19

File: USPT

May 4, 2004

US-PAT-NO: 6731215

DOCUMENT-IDENTIFIER: US 6731215 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Moisture monitoring system

DATE-ISSUED: May 4, 2004



## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Harms; Frederick H.	Overland Park	KS	66212	
McKenzie; Charles	Johannesburg		2130	ZA

US-CL-CURRENT: 340/605; 200/61.04, 200/61.05, 340/573.5, 340/602, 340/603, 340/604

## ABSTRACT:

A leakage response system for an appliance includes a leakage sensor which is operative to change an electrical parameter upon contact by a conductive liquid, a controller circuit electrically coupled with the strip for generating an activation signal in response to contact of the strip by a conductive liquid and a response device coupled with the controller circuit and activated by the signal. The sensor includes a mat which is constructed of top and bottom outer layers of electrically conductive fabric separated by a central nonconductive fabric layer; and a pair of fusing layers fusing the top and bottom layers to the central nonconductive layer. The sensor may also include a pair of conductive pins for installation into a surface for detecting moisture hidden within the surface. The response device may include an audible alarm and/or a valve for shutting off the water flow in the appliance water supply line. The response device may also include a radio link for activating a remote alarm and shut off valve. An alternate sensor mat includes a pair of apertured foil conductive layers separated by a nonconductive layer, and a pair of fusing layers fusing the foil conductive layers to top and bottom nonconductive absorbent layers.

14 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMMC	Draw. Des.
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☐ 10. Document ID: US 6662821 B2

L14: Entry 10 of 19

File: USPT

Dec 16, 2003

US-PAT-NO: 6662821

DOCUMENT-IDENTIFIER: US 6662821 B2

TITLE: System and method for closing an existing valve in response to a detected leak

DATE-ISSUED: December 16, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobsen; Ron	Hobe Sound	FL		
Craig; Jack	Boca Raton	FL		
Lumsden; John	Boca Raton	FL		

US-CL-CURRENT: 137/312; 137/2, 137/557, 137/78.1, 251/129.03, 251/129.04, 251/129.11, 251/292, 340/605, 340/620, 361/178, 361/182, 700/282

## ABSTRACT:

The invention is system and method for detecting a leak and operating an existing valve in response to the detected leak. In this regard, a receiving unit may be installed on an existing shutoff valve. The valve may control the flow of a fluid into a site. A transmitting unit may be installed in the vicinity of an appliance receiving the fluid. The transmitting unit may include a detector capable of detecting the fluid. In response to the detector detecting the fluid, the transmitting unit may transmit a signal including a unique 32 bit code. A receiver within the receiving unit may be capable of receiving the signal. Additionally, a PIC microprocessor within the receiving unit may be configured to receive the signal from the receiver and determine if the signal contains the code. In response to determining the signal contains the code, the PIC may control a motor to operate (e.g., turn off) the valve. The motor may be configured for attachment to the valve via a coupler.

50 Claims, 8 Drawing figures

Exemplary Claim Number: 48

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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(9 AND 8).PGPB,USPT.				19	
(L9 AND L8).PGPB,USPT.				19	

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☐ 11. Document ID: US 6639517 B1

L14: Entry 11 of 19

File: USPT

Oct 28, 2003

US-PAT-NO: 6639517

DOCUMENT-IDENTIFIER: US 6639517 B1

TITLE: Leak detection mat and system

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chapman; James	Parkersburg	WV	26105	
Chapman; Clifford J.	Wichita Falls	TX	76306	

US-CL-CURRENT: 340/605; 137/312, 340/604

ABSTRACT:

A water leak detector system with alarm can be used to monitor inaccessible areas under various household appliances and warn of water leaks. A leak detection mat, having base layer of varying and appropriate sizes has disposed on it one or more pairs of electrodes arranged in a pattern around the upper surface of the base mat such that the two wires of each pair are parallel to the other and generally separated at a constant distance, and together the pair is positioned in a pattern across the surface. An absorbent layer is affixed to the base layer, covering and in contact with the electrodes. The absorbent layer may be impregnated with a soluble ionic salt to increase electrical conductivity when the adsorbent layer is wetted. A sensing and transmitting circuit having two input connections is affixed to the base substrate, with one end of each electrode attached to one of the input connections of the sensing and transmitting circuit. A plurality of leak detection mats may be used in a single system, each mat located under a potential water leak source. Upon water falling upon and being adsorbed by the adsorbent layer, the electrical resistance between the two electrodes at points nearest the leak will decrease. This decrease in resistance is detected by the sensing and transmitting circuit, which transmits a signal. An alarm unit receives the signal and activates an audible and/or visual alarm, the signal being sent either by radio waves or by an electrical signal through wires. The alarm unit is capable of monitoring a plurality of leak detection mats.

13 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstracts	Attachments	Claims	KMMC	Draw De
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☐ 12. Document ID: US 6369714 B2

L14: Entry 12 of 19

File: USPT

Apr 9, 2002

US-PAT-NO: 6369714

DOCUMENT-IDENTIFIER: US 6369714 B2

TITLE: Water leak detection and correction device

DATE-ISSUED: April 9, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Walter; Scott A.	Trabuco Canyon	CA	92679	

US-CL-CURRENT: 340/605; 340/604, 340/618, 340/620

## ABSTRACT:

A water leak detection apparatus comprises a sensor, a control unit and a valve module. The sensor is adapted to be placed below a water line or coupling. The valve module is positioned as far upstream on a water line as possible. The control unit actuates the valve module and an audible alarm when the sensor detects a water leak. The valve module closes a valve positioned along the water line to restrict flow through the water line until the control unit has been manually reset. The control unit also features a trigger button to allow the valve to be manually cycled for cleaning, for instance.

5 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstracts	Attachments	Claims	KMMC	Draw De
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☐ 13. Document ID: US 6025788 A

L14: Entry 13 of 19

File: USPT

Feb 15, 2000

US-PAT-NO: 6025788

DOCUMENT-IDENTIFIER: US 6025788 A

TITLE: Integrated local or remote control liquid gas leak detection and shut-off system

DATE-ISSUED: February 15, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Diduck; Victor John	Kamloops			CA

US-CL-CURRENT: 340/870.16; 340/3.4, 340/3.44, 340/539.1, 340/539.26, 340/605

## ABSTRACT:

A novel system for detecting liquid and/or gas leaks and automatically shutting off the source of the liquid and/or gas leak. The system includes electronically detecting undesirable liquid and/or gas leaks, electronically transmitting signal about such undesirable liquid and/or gas leak, electronically receiving the signal, and electronically activating a mechanism which shuts off a liquid and/or gas valve thereby stopping the liquid or gas leak.

6 Claims, 23 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 20

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draw De
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☐ 14. Document ID: US 4998434 A

L14: Entry 14 of 19

File: USPT

Mar 12, 1991

US-PAT-NO: 4998434

DOCUMENT-IDENTIFIER: US 4998434 A

TITLE: Gas leakage detector

DATE-ISSUED: March 12, 1991

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Asbra; Andrew F.	San Mateo	CA	94401	

US-CL-CURRENT: 73/40.5R

## ABSTRACT:

A gas leakage detector includes a housing, an inlet coupling, internal fluid flow path and an outlet coupling enabling the housing to be installed and coupled permanently in-line with a gas supply line. The housing includes a cutoff valve, a gas pressure indicator coupling valve, a detachable gas pressure indicator, and a charging gas source coupling enabling a one way flow of optional use charging gas, to enter the housing downstream of the valve and to pass into and through the gas supply line. Existing line pressure or charging gas pressure is monitored at the indicator to indicate the presence of any leaks downstream of the valve. The indicator may be attached to the coupling valve on the housing or to the external charging gas source.

11 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draw De
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☐ 15. Document ID: US 4895018 A

L14: Entry 15 of 19

File: USPT

Jan 23, 1990

US-PAT-NO: 4895018

DOCUMENT-IDENTIFIER: US 4895018 A

TITLE: Gas leakage detector

DATE-ISSUED: January 23, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Asbra; Andrew F.	Burlingame	CA	94010	

US-CL-CURRENT: 73/40.5R

## ABSTRACT:

A gas leakage detector includes a housing, an inlet coupling, internal fluid flow path and an outlet coupling enabling the housing to be installed and coupled permanently in-line with a gas supply line. The housing includes a cutoff valve, a gas pressure indicator and a charging gas source coupling enabling a one way flow of optional use charging gas to enter the housing downstream of the valve and to pass into and through the gas supply line. Existing line pressure or charging gas pressure is monitored at the indicator to indicate the presence of any leaks downstream of the valve. The system may be used to continuously monitor gas pressure.

9 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	KWOC	Draw. Data
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☐ 16. Document ID: US 4847599 A

L14: Entry 16 of 19

File: USPT

Jul 11, 1989

US-PAT-NO: 4847599

DOCUMENT-IDENTIFIER: US 4847599 A

TITLE: Fluid leak detector

DATE-ISSUED: July 11, 1989

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Imiolex; Mieczyslaw	Withington			GB2
Alexander; Arthur	Rickmansworth			GB2

US-CL-CURRENT: 340/605; 73/40.5R

## ABSTRACT:

A fluid leak detector has a body with a chamber provided with a fluid inlet and outlet. A valve is disposed between the inlet and outlet and the valve closure member is connected to a diaphragm. Fluid in the chamber applies pressure on the diaphragm and the detector includes means which allow the valve to be open at a pressure greater than a predetermined value and cause the valve to close at pressures below that value, which may be due to a fluid leak. The detector has a safety lock-off mechanism which locks the valve once it has closed and which must be reset to allow the valve to open when fluid pressure has been restored. The detector also provides a visual indication of fluid leaks. A fluid supply installation incorporating the fluid leak detector will shut down the fluid supply if a leak is detected.

10 Claims, .5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw D
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☐ 17. Document ID: US 4077427 A

L14: Entry 17 of 19

File: USPT

Mar 7, 1978

US-PAT-NO: 4077427

DOCUMENT-IDENTIFIER: US 4077427 A

TITLE: Leak detector valve assembly

DATE-ISSUED: March 7, 1978

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rosan, Jr.; Jose	Newport Beach	CA		
Reece; Marvin P.	Dana Point	CA		

US-CL-CURRENT: 137/551; 116/266, 48/193

## ABSTRACT:

A valve assembly for detecting leaks in a fluid system which includes an air-tight, liquid chamber defined by a transparent sleeve enclosed within a removable cap having windows formed therebetween, the chamber being at least partially filled with liquid, and a plunger means provided with an orifice, including a tube means arranged to communicate between said orifice and liquid within the liquid chamber, wherein the lower end of the tube means is provided with a restraining and sealing means, whereby the upward movement is restricted thereby, and the liquid chamber is sealed during the open mode of the valve. The terminating end of the tube is formed having a beveled tip to allow ease of fluid discharge therefrom. The valve assembly is connected to the fluid line so as to allow the fluid to pass therethrough unimpeded. Depression of the plunger effectively closes the fluid line, except for the passageway afforded by the orifice and the tube, allowing fluid flow to be

discharged within the liquid chamber, whereby the existence of a leak in the fluid system is readily observed, through the liquid chamber windows, in the form of escaping fluid bubbles.

6 Claims, 3 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KNOC	Draw. De
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☐ 18. Document ID: US 3874403 A

L14: Entry 18 of 19

File: USPT

Apr 1, 1975

US-PAT-NO: 3874403

DOCUMENT-IDENTIFIER: US 3874403 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Safety attachment for appliances subject to fluid leakage

DATE-ISSUED: April 1, 1975

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fischer; Wayne L.	Clovis	CA	93612	

US-CL-CURRENT: 137/386; 134/57D, 137/387, 137/392, 137/557, 200/61.04, 340/605, 68/208

ABSTRACT:

An attachment for an appliance having a fluid inlet conduit, the attachment having a pipe fitting with oppositely extending couplings adapted to be mounted on the conduit so as to link segments thereof in fluid transferring relation and having an internal valve seat disposed between the couplings; a solenoid mounted on the fitting, a valve closure borne by the solenoid for movement to and from the valve seat; a fluid sensitive switch positioned for exposure to fluid leakage from the appliance; and an electrical circuit including a power source interconnecting the switch and the solenoid in controlling relation.

10 Claims, 5 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KNOC	Draw. De
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☐ 19. Document ID: US 3874224 A

L14: Entry 19 of 19

File: USPT

Apr 1, 1975

US-PAT-NO: 3874224



DOCUMENT-IDENTIFIER: US 3874224 A

TITLE: Leak detecting apparatus

DATE-ISSUED: April 1, 1975

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Richard S.	Overland Park	KS		

US-CL-CURRENT: 73/40; 116/276, 48/193, 73/40.5R

## ABSTRACT:

A leak detecting apparatus for detecting flow of gas through a gas pipe system in house trailers and the like includes a tilting clear bowl partially filled with liquid and containing a submersible flow tube which is free of the liquid during normal flow and which is immersed during leak detecting conditions whereupon a leak creates visible bubbles. The leak detecting apparatus may include a cooperative arrangement associated with a door to produce a testing sequence before the door is opened. The leak detecting apparatus may include a valve member selectively movable to interrupt gas flow in the gas pipe system and bores and passages for directing any gas flow to and through the submersible flow tube.

15 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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Term	Documents
(9 AND 8).PGPB,USPT.	19
(L9 AND L8).PGPB,USPT.	19

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L31: Entry 2 of 2

File: DWPI

Mar 2, 1991

DERWENT-ACC-NO: 1991-223303

DERWENT-WEEK: 199131

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TITLE: Protective automatic dishwashing system - has elements to prevent leakage of liq. and to divert liq. away from area beneath dishwasher

Basic Abstract Text (1):

The system comprises elements for intercepting and preventing an accumulation of leakage liquid from an automatic dishwasher prior to the leakage liquid contacting the underlying surface on which the dishwasher is supported. It also includes members in the intercepting and preventing elements for diverting leakage liquid from the dishwasher and away from an enclosed area located beneath the dishwasher and alerting a user of the dishwasher that leakage liquid is being emitted from the dishwasher.

Standard Title Terms (1):

PROTECT AUTOMATIC DISHWASHER SYSTEM ELEMENT PREVENT LEAK LIQUID DIVERT LIQUID AREA BENEATH DISHWASHER

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L31: Entry 2 of 2

File: DWPI

Mar 2, 1991

DERWENT-ACC-NO: 1991-223303

DERWENT-WEEK: 199131

COPYRIGHT 2007 DERWENT INFORMATION LTD

TITLE: Protective automatic dishwashing system - has elements to prevent leakage of liq. and to divert liq. away from area beneath dishwasher

INVENTOR: BATES, C R

PATENT-ASSIGNEE: BATES C R (BATEI)

PRIORITY-DATA: 1989US-0401949 (September 1, 1989)

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## PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

[CA 2024544 A](#)

March 2, 1991

000

INT-CL (IPC): B08B 13/00

ABSTRACTED-PUB-NO: CA 2024544A

## BASIC-ABSTRACT:

The system comprises elements for intercepting and preventing an accumulation of leakage liquid from an automatic dishwasher prior to the leakage liquid contacting the underlying surface on which the dishwasher is supported. It also includes members in the intercepting and preventing elements for diverting leakage liquid from the dishwasher and away from an enclosed area located beneath the dishwasher and alerting a user of the dishwasher that leakage liquid is being emitted from the dishwasher.

The protective device includes intercepting and preventing components sized to fit beneath the dishwasher prior to installation of the dishwasher on the underlying surface.

USE- A protective automatic dishwashing system.

ABSTRACTED-PUB-NO: CA 2024544A

## EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2/2

DERWENT-CLASS: P43

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☐ 1. Document ID: AU 2003275447 A8, US 20040065351 A1, US 6718993 B1, WO 2004032700 A1, AU 2003275447 A1, EP 1571965 A1

L31: Entry 1 of 2

File: DWPI

Nov 17, 2005

DERWENT-ACC-NO: 2004-294592

DERWENT-WEEK: 200638

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TITLE: Household dishwasher, has drain pan to relocate leaking fluids to observable location, and collecting water that falls from interior of dishwasher, and pan is angled for diverting water to fixed location exterior to dishwasher

INVENTOR: DEMARTINI, K L

PRIORITY-DATA: 2002US-0264961 (October 4, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>AU 2003275447 A8</u>	November 17, 2005		000	A47L015/42
<u>US 20040065351 A1</u>	April 8, 2004		009	B08B009/20
<u>US 6718993 B1</u>	April 13, 2004		000	B08B007/04
<u>WO 2004032700 A1</u>	April 22, 2004	E	000	A47L015/42
<u>AU 2003275447 A1</u>	May 4, 2004		000	A47L015/42
<u>EP 1571965 A1</u>	September 14, 2005	E	000	A47L015/42

INT-CL (IPC): A47L 15/42; B08B 7/04; B08B 9/20; B65D 90/24; D06F 39/08; F24H 9/06

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 2. Document ID: CA 2024544 A

L31: Entry 2 of 2

File: DWPI

Mar 2, 1991

DERWENT-ACC-NO: 1991-223303

DERWENT-WEEK: 199131

COPYRIGHT 2007 DERWENT INFORMATION LTD

TITLE: Protective automatic dishwashing system - has elements to prevent leakage of liq. and to divert liq. away from area beneath dishwasher

INVENTOR: BATES, C R

PRIORITY-DATA: 1989US-0401949 (September 1, 1989)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CA 2024544 A	March 2, 1991		000	

INT-CL (IPC): B08B 13/00

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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